SUPERFUND FACT SHEET

U.S. EPA REGION 5

ACME SOLVENT SITE AND PAGEL'S PIT SITE
Rockford, Illinois

Summer 1987 • Number 1

INTRODUCTION

Beginning this summer, two hazardous waste sites near Rockford, Illinois, will be under investigation by the United States Environmental Protection Agency (U.S. EPA). Both sites are listed on the *National Priorities List (NPL)*.

U.S. EPA will oversee a *Remedial Investigation (RI)* at the Pagel's Pit site and, together with the Illinois Environmental Protection Agency (IEPA), will supervise a Supplemental Investigation of the Acme Solvent site. The purpose of the studies is to determine the nature and extent of contamination present at each site, and to find out how each site is affecting the local environment.

Although remedial activities will be conducted independently at each site, U.S. EPA will combine community relations activities, such as fact sheets and public meetings, for Acme Solvent and Pagel's Pit. This is primarily due to the close proximity of the two sites and the fact that interested parties for each site are essentially the same.

This fact sheet provides background information on the Acme Solvent and Pagel's Pit sites and summarizes the activities planned for each individual investigation. The work plan developed for each site is available for public review at the Rockford Public Library, 215 North Wyman, Rockford, Illinois.

ACME SOLVENT RECLAIMING INC. BACKGROUND

The Acme Solvent site encompasses 20 acres, five acres of which have been used for waste disposal. The site was used as a drum storage and disposal area for wastes generated by Acme's solvent distillation units in Rockford. During the period of operation (1960-1972), the site consisted of seven waste disposal lagoons and open storage of about 10,000 to 15,000 drums. Although operations at the site were temporarily discontinued in 1969 because of concern expressed by the Winnebago County Department of Public Health, site operations resumed in 1971 and continued until 1972.

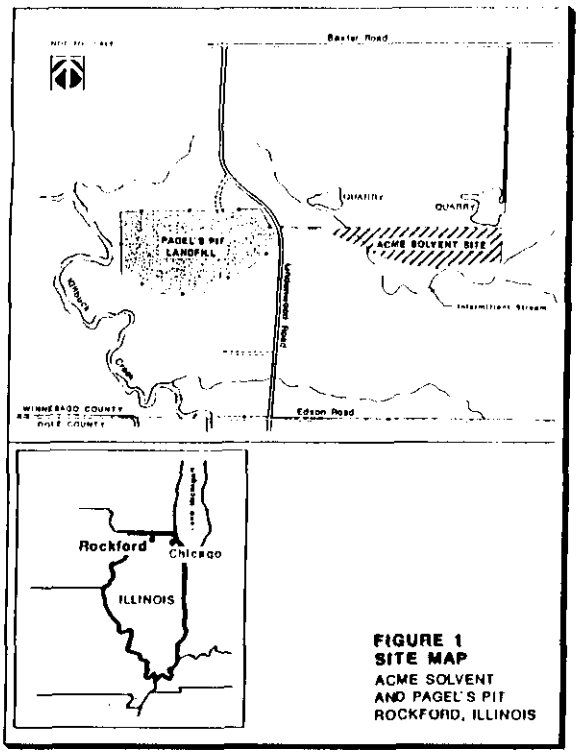

FIGURE 1
SITE MAP
ACME SOLVENT
AND PAGEL'S PIT
ROCKFORD, ILLINOIS

Paints, oils, solvents, and sludges are among the wastes known to have been deposited at the Acme Solvent site. Waste disposal practices consisted of emptying drums into the lagoons and storing the empty drums at various open areas on the site. Sludge and other non-recyclable materials were pumped from tanker trucks into the lagoons.

After receiving several reports in 1972, IEPA investigators found the following violations of environmental regulations: operating a waste disposal facility without a permit; open burning of refuse; and dumping liquids in a manner that posed a threat to the groundwater. In September 1972, the Illinois Pollution Control Board (IPCB) issued an order requiring cleanup of the Acme Solvent Reclaiming Inc. site.

Subsequent IEPA inspections conducted between December 1972 and spring 1973 indicated that although some of the drums had been removed, the majority were being crushed and buried at the site. In addition, waste in the lagoons was being covered rather than removed for off site disposal. Following these investigations IEPA closed the Acme Solvent site.

In 1981, methane migration into some homes located between the Acme Solvent site and the nearby Pagel's Pit landfill led to well water testing by the Winnebago County Department of Public Health. Significant levels of organic chemicals were found in four private drinking water wells on adjacent properties.

THE SITES

The Acme Solvent and Pagel's Pit sites are located on Lindenwood Road, one and one-quarter miles southeast of New Milford, Illinois and about 5 miles southeast of Rockford, Illinois in rural Winnebago County (Figure 1). The Acme Solvent site lies about one-half mile east of Lindenwood Road. Both sites are surrounded by farms and single family homes.

Property owners were advised to seek an alternate source of drinking water.

In February 1987, the Acme Solvent *Potentially Responsible Parties (PRPs)* installed home carbon treatment units in five residences where wells were contaminated. The residents were provided with free bottled water until the units could be used for drinking water purposes.

Based on data gathered during the initial Remedial Investigation at the Acme Solvent site, various *volatile organic compounds (VOCs)* were the main contaminants found on the site. Several of these compounds are believed to be carcinogenic and many pose a chronic health risk. Concentrations of VOCs were found in the *aquifer* beneath the site and off site. Very small amounts of metals such as lead, arsenic and barium were found in the *groundwater* beneath the site, but not in residential well drinking water. These chemicals could pose a health risk if allowed to migrate to drinking water wells. Neither contaminated surface water nor creek sediment was discovered during this investigation.

Since the Acme Solvent site was placed on the National Priorities List (NPL) in 1982, the PRPs for the site have excavated and disposed of about 42,000 tons of contaminated materials. These actions were not consistent with the remedy selected by U.S. EPA or IEPA.

To effectively deal with the contamination remaining on and near the site, 21 Acme Solvent PRPs have entered into a Consent Order with U.S. EPA and IEPA to study and analyze possible cleanup alternatives.

PAGEL'S PIT LANDFILL BACKGROUND

Pagel's Pit landfill is a former sand and gravel pit that was converted into a waste disposal site. In 1972, the Rockford Blacktop Construction Company (RBCC) was granted an operational permit by the IEPA to handle industrial and domestic refuse. RBCC graded the bottom and side slopes of the 35 foot deep pit, put down two inches of hot asphalt mix, and sealed the asphalt with two coats of coal tar emulsion.

The original operational permit stated that no sewage sludge or hazardous waste could be accepted at the site. Subsequently, the operators requested and received IEPA permits to accept sewage sludge from the Rockford Sanitary District, plating and painting sludges, and other industrial wastes. The Winnebago Reclamation Service, Inc. bought the property in 1976.

IEPA and Winnebago County Department of Public Health inspections from 1978 to 1981, found a number of violations of the Illinois Environmental Protection Act and IPCB regulations. Alleged violations included seeping and flowing leachate, ponding of leachate outside of the asphalt liner, inadequate cover, and blowing litter. Nearby residents also complained of odor and blowing litter from the site, and leachate odor coming from their private wells. In addition, U.S. EPA has found evidence of groundwater contamination in the area.

In 1980, methane gas was detected in the basements of nearby homes. In response to this problem, the landfill owners have installed a gas venting system and utilized a leachate collection system which seems to have solved this problem.

During 1981 testing by the Winnebago County Department of Public Health, organic compounds were detected in some nearby private drinking wells. Determination of the specific source of goundwater pollutants in the area is complicated by the proximity of Pagel's Pit landfill to Acme Solvent Reclaiming Inc. The initial Remedial Investigation for the Acme Solvent site suggested two plumes of groundwater contamination: one from the Acme Solvent site; and one from the Pagel's Pit landfill. The Remedial Investigation scheduled for Pagel's Pit will determine the extent, if any that the landfill is contributing to groundwater and surface water contamination.

Pagel's Pit was placed on the NPL in October 1984. Inclusion on the NPL was based on the fact that arsenic, found in site leachate, also was discovered in a well on the northern border of the site. The landfill is located directly over a shallow aquifer used for drinking water by area residents. Four Pagel's Pit PRPs entered into a Consent Order with U.S. EPA in August 1986 to perform a *Remedial Investigation and Feasibility Study (RI/FS)* for the site. Planning documents for the investigations at both sites are currently being finalized by the U.S. EPA.

PAGEL'S PIT REMEDIAL INVESTIGATION

The U.S. EPA is currently reviewing a work plan in which the Pagel's Pit PRPs have detailed each activity to be conducted during the upcoming RI/FS. U.S. EPA will oversee all aspects of the planning and performance of work under this project. Field investigation activities for the RI/FS are scheduled to begin this summer. Table 1 outlines the specific tasks to be conducted during the Pagel's Pit RI.

The second part of the RI/FS process is the Feasibility Study (FS). Based on the findings of the RI, several alternatives for addressing site contamination will be proposed. During the FS, these alternatives will be evaluated on the following basis: meeting applicable environmental requirements; effectiveness in protecting public health, welfare, and the environment; and cost.

Local officials and the community will have the opportunity to review and comment on U.S. EPA's proposed remedial alternatives following completion of the FS. Based on the findings of the FS, and comments received from the public, U.S. EPA will choose an alternative that is both environmentally sound and cost effective.

U.S. EPA will distribute additional fact sheets and hold a public meeting when the results of the Pagel's Pit RI and FS are finalized, and the *Record of Decision (ROD)* has been signed.

ACME SOLVENT SUPPLEMENTAL INVESTIGATION

The Acme Solvent Supplemental Investigation will involve the study of soil, bedrock and groundwater on and around the Acme Solvent site. Early studies at the site showed groundwater contamination to be more widespread than originally anticipated. The Supplemental Investigation is scheduled to begin this summer, pending U.S. EPA and IEPA approval of the work plan.

As with the Pagel's Pit site, U.S. EPA will oversee all aspects of the investigation and, together with the IEPA, will conduct community relations activities during the course of the investigation.

After completion of the investigation, the PRPs will develop a number of alternatives for permanent cleanup of the Acme Solvent site. Each alternative will then be evaluated in terms of public health, the environment, technical feasibility, and cost. Considering all comments made by the public during a comment period on the alternatives, U.S. EPA will choose a final remedy for the site.

AVAILABLE INFORMATION

Anyone desiring additional information about the RI/FS process, or specific activities scheduled for the Acme Solvent and Pagel's Pit sites, can consult copies of various documents that have been prepared for each site. Copies of the applicable laws, the Community Relations Plan, and other site documents are available at the Rockford Public Library on 215 North Wyman, Rockford, Illinois.

GLOSSARY

Groundwater -Water found beneath the Earth's surface that fills pores in rock or between soil, sand, and gravel particles to the point of saturation. Groundwater generally flows through zones of rock or soil (at rates much slower than surface water) and when it occurs in sufficient quantity, groundwater can be used as a water supply

Aquifer - A particular zone or layer of rock or soil below the ground surface that is capable of yielding usable quantities of groundwater.

Leachate - Leachate is not a specific chemical itself; it is a liquid that has percolated through wastes and contains components of these wastes. For instance, water may mix with wastes inside a landfill, become contaminated, and then seep into groundwater or onto the surface.

National Priorities List (NPL) - U.S. EPA's list of the top priority hazardous waste sites in the country. NPL sites are eligible for federal cleanup money under Superfund.

Potentially Responsible Parties (PRPs)- An individual or a company identified as potentially liable for the release of a hazardous substance into the environment. These parties may include generators, transporters, storers, and disposers of hazardous waste, as well as site owners and operators.

Record of Decision (ROD) - A public document that explains which cleanup alternative(s) will be used at National Priorities List sites, and why the alternative(s) is needed

Remedial Alternative - A method or combination of methods designed to protect public health, welfare, and the environment over the long term from releases of hazardous substances at a Superfund site. Remedial alternatives are a combination of technologies that contain, remove, or destroy most of the contaminants in the air, water, soil, and/or groundwater at a Superfund site.

Remedial Investigation/Feasibility Study (RI/FS) - The Remedial Investigation (RI) examines the nature and extent of contamination problems at a site. The Feasibility Study (FS) evaluates different remedial alternatives for site cleanup.

Sludge - A term that describes a thickened solid/liquid waste byproduct of an industrial, recycling, or treatment process

Solvent - A substance that can dissolve another substance to form a solution. Solvents are used in industrial cleaners, paints, and pharmaceuticals. Many solvents are flammable and toxic, to varying degrees.

Superfund - Also known as CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act). This law authorizes the federal government to respond directly to releases (or threatened releases) of hazardous substances that may endanger public health, welfare, or the environment. The U.S. Environmental Protection Agency is responsible for managing the Superfund program.

Volatile Organic Compounds (VOCs) - Organic compounds that evaporate readily when exposed to air. VOCs are a more significant problem in groundwater than in surface water because there is no air for them to evaporate into. Therefore, it is possible for VOCs to remain in groundwater and pose a potential threat to human health and the environment. Some examples of VOCs are: Trichlorethylene; Dichlorethane; Dichlorethylene; and Vinyl Chloride.

MAILING LIST

If you wish to be placed on the Acme Solvent/Pagel's Pit mailing list, please complete this form, detach, and mail to:

MaryAnn Croce
U.S. Environmental Protection Agency
Office of Public Affairs
230 South Dearborn Street
Chicago, Illinois 60604

Name _____

Affiliation _____

Address _____

City _____ State _____ Zip _____

Phone ( ) _____

If you have further questions, please contact the following U.S. EPA and IEPA personnel:

MaryAnn Croce
Community Relations Coordinator
Office of Public Affairs
(312) 886-1728

David Favero
Remedial Project Manager
Hazardous Waste Enforcement Branch
(312) 886-4844

U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

TOLL FREE: (800) 572-2515
8:30 a.m. to 4:30 p.m.
Central Daylight Time

Greg Michaud
Community Relations Coordinator
(217) 782-5562

Doug Crandall
Remedial Project Manager
(217) 785-3913

Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

TABLE 1

Remedial Investigation Activities For the Pagel's Pit Site

Objectives

- To determine the extent to which Pagel's Pit landfill is, if at all, contributing to local groundwater contamination;
- To determine whether any contaminants found on site pose a danger to public health, welfare, or the environment; and,
- To gather information necessary to complete a Feasibility Study (FS).

Task	Description	Schedule
Leachate Sampling	Six samples of leachate from various locations at the landfill will be collected and analyzed on a bi-monthly basis for 10 months. In addition, the PRPs will keep a field log to document the date, time and location of any leachate seeps, or flows from the site.	Summer 1987/ Spring 1988
Hydrogeologic Study	The PRPs will install twenty monitoring wells at various locations on and around the landfill. Water quality and water level monitoring will take place for a minimum of two quarters.	Summer 1987/ Spring 1988
Surface Water/ Sediment Study	Samples of surface water and sediments will be collected from five locations in Killbuck Creek.	Summer/Fall 1987
Air Investigation	Landfill gases will be collected from vents located on the Pagel's Pit property and gas monitoring will be conducted at the property boundaries. These studies will determine the type, concentration, and toxicity of individual volatile organic compounds (VOCs).	Summer/Fall 1987
Interim Groundwater Evaluation	Evaluates information collected to date to determine if a second investigation phase is necessary.	Spring 1988
RI Report	*The RI Report will present an analysis of* the studies listed above and describe the nature and extent of contamination in the site area.	*Fall 1988*

TABLE 2

Supplemental Investigation Activities For the Acme Solvent Site

Objectives

- To characterize the Acme Solvent facility and determine its actual or potential hazard to public health and the environment; and,
- To gather information to support the development and evaluation of remedial action alternatives for permanent cleanup of the site.

Task	Description	Schedule
Monitoring Wells	Monitoring well clusters will be installed at 6 locations on and around the Acme Solvent site.	Summer/Fall 1987
Hydrogeologic Study	The PRPs will monitor the groundwater through new and existing wells located on and around the site. Water quality and water level monitoring will take place on a quarterly basis for one year.	Summer 1987/ Spring 1988
Bedrock and Soil Investigation	Studies of soil and bedrock contamination directly beneath the site's waste mounds will be conducted to determine the extent of contaminant migration. These studies will be accomplished through corings drilled at various depths into the underlying bedrock.	Summer/Fall 1987
Surface Water Sampling	Samples of surface water will be taken from four monitoring stations along the intermittent stream south of the site. This will assess the potential impact of the Acme Solvent site on the stream. Quarterly monitoring of each stream station will be conducted for one year.	Summer 1987/ Spring 1988
Supplemental Investigation Report	Acme Solvent PRPs will prepare a thorough analysis and summary of the investigation and its results. The data should be of sufficient quality and quantity to support the evaluation of remedial alternatives for the site.	Fall 1988